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ABSTRACT

Ethnic, racial, and religious discrimination in selective college admissions was commonplace in the 1920's, but it is doubtful that the College Board's 1926 innovation, the Scholastic Aptitude Test (SAT), was developed to be used as an instrument of prejudice. By 1926, the use of quotas by elite colleges had made discrimination in admissions through the use of tests somewhat superfluous. Socially selective schools, in this early period, probably sought the SAT primarily to help evaluate "desirable" borderline candidates who could not otherwise demonstrate clearly their qualifications. The enthusiasm of at least one proponent of the SAT's precursor, the National Intelligence Test, did stem in part from a belief that such tests could be used to identify and reject presumably less intelligent college applicants from minority groups but by the time of the SAT's introduction, its creator, Carl Brigham, was skeptical that it measured intelligence. Although Brigham did support the "native intelligence" hypothesis early in his career, he publicly reversed his position in 1930 and thereafter stated that heredity had little to do with average performance on tests by ethnic groups. (Author)

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RESEARCH MEMORANDUM

CARL CAMPBELL BRIGHAM, THE NATIVE INTELLIGENCE HYPOTHESIS, AND THE SCHOLASTIC APTITUDE TEST

Gary D. Saretzky

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Educational Testing Service
Princeton, New Jersey

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Abstract

Ethnic, racial, and religious discrimination in selective college admissions was commonplace in the 1920's, but it is doubtful that the College Board's 1926 innovation, the Scholastic Aptitude Test, was developed to be used as an instrument of prejudice. By 1926, the use of quotas by elite colleges had made discrimination in admissions through the use of tests somewhat superfluous. Socially selective schools, in this early period, probably sought the SAT primarily to help evaluate "desirable" borderline candidates who could not otherwise demonstrate clearly their qualifications.

The enthusiasm of at least one proponent of the SAT's precursor, the National Intelligence Test, did stem in part from a belief that such tests could be used to identify and reject presumably less intelligent college applicants from minority groups but by the time of the SAT's introduction, its creator, Carl Brigham, was skeptical that it measured intelligence. Although Brigham did support the "native intelligence" hypothesis early in his career, he publicly reversed his position in 1930 and thereafter stated that heredity had little to do with average performance on tests by ethnic groups.

America's 1920's were marked by a peaking of racial and ethnic prejudice. Threatened by such disruptions as revolution in Europe, the earlier arrival of millions of immigrants, and growing Black militancy, white Protestants manifested their fears in such phenomena as the Red Scare, the Sacco and Vanzetti case, restrictive immigration laws, and renewed vigor in the Ku Klux Klan. The decade is also noted for the proliferation of intelligence tests as a consequence of such factors as the pre-World War I work of Binet and other testing pioneers, the apparent success of testing by the U.S. Army during the war, and educators eager to embrace them for both pragmatic and philosophical reasons. Racists helped to create a cultural environment in which purported measures of inherited intellectual ability were quite appealing.

During this era, characterized by both testing innovations and racist ideology, white supremacists found sustenance for their views in the research findings of experimental psychologists who ascribed average score differences among racial and ethnic groups on intelligence tests to the "germ plasm." The influential Edward Lee Thorndike for example, after testing New York City school children, concluded as early as 1911 that "the differences in the environment do not seem at all adequate to account for the superiority of the whites."[1] Thorndike went on from this conclusion to advocate not only the use of intelligence tests at higher levels of education, but selective breeding as well. As he put it as late as 1940, "One sure service of the able and good is to beget and rear offspring. One sure service (about the only one) which the inferior and vicious can perform is to prevent their genes from survival."[2]

Thorndike's views on the inheritability of intelligence influenced, if not determined, his educational philosophy. He believed that since mental ability was inherited, it was a waste of resources to provide higher education for the masses. America would be best served by identifying, through the use of intelligence tests, gifted youth and lavishing its attention on them, for they would be responsible for "progress." "It seems entirely safe," wrote Thorndike, "to predict that the world will get better treatment by trusting its fortunes to its 95- or 99-percentile intelligences than it would get by itself."[3]

For his role in the development and popularization of intelligence tests for use in college admissions, Thorndike could be called the grandfather of the Scholastic Aptitude Test (SAT). During World War I, he played an active role in the army program of testing the mental ability of recruits as Chairman of the Committee on Classification of Personnel. Before the end of the conflict, Thorndike prepared a more competitive version of the army's "alpha" test for use by Columbia University in selecting applicants for an officer preparation program, the Student Army Training Corps. After the armistice, with the assistance of Ben D. Wood and support from the National Research Council, Thorndike developed the National Intelligence Test, which was required by Columbia of most applicants beginning in 1919 and made available for use by other selective institutions of higher learning.[4] It was the popularity of the N.I.T. and similar tests that led the College Board to sponsor the SAT to eliminate duplication of effort among its 35 members. But significantly, although the SAT was a direct descendant of the "alpha" and N.I.T., its primary author, Carl Brigham, did not claim it to be an intelligence test.

If Thorndike was the grandfather, Carl Campbell Brigham was the father of the Scholastic Aptitude Test. Brigham was eminently qualified to play this leading role. He had developed a passion for "mental tests" before his graduation from Princeton University in 1912, and received his doctorate in 1916 for his dissertation on the Binet IQ tests. After serving as psychologist in the Canadian Army until America entered World War I, Brigham returned to administer the aforementioned intelligence tests to U.S. Army recruits. He joined the psychology faculty at Princeton University in 1920 and began studying the use of the army-type intelligence tests for college admissions and guidance purposes. By 1925, he had devised his own, the Princeton Test. That year, the College Board appointed Brigham to be chairman of the committee of testing experts directed to prepare and administer the first SAT in 1926. Brigham subsequently became Associate Secretary, then Research Secretary, of the Board and remained generally responsible for the test during its first decade. His magnum opus on the SAT, A Study of Error, was published in 1932.[5]

There is no reason to doubt that Brigham shared the opinions of Thorndike on the inheritability of intelligence during the period he was working toward the introduction of the Scholastic Aptitude Test, although as will be seen below, he did modify his views. In 1923, he published A Study of American Intelligence, which to some extent marks the high water mark for the "native intelligence hypothesis" among American psychologists. In this book, Brigham, encouraged by Robert Yerkes, who had directed the army testing program, and by Charles W. Gould, Madison Grant, and other proponents of white supremacy, reanalyzed the results of the alpha and

beta examinations and claimed that the "Nordic, Alpine, Mediterranean, and negro" races differed in average intelligence in descending order. Consequently, Brigham argued, the continued intermingling of these races, a process racists termed "mongrelization," was causing a decline in the national intelligence. Restrictive immigration and naturalization laws, wrote Brigham, would "only afford slight relief," although certainly they should be instituted. "The really important steps are those looking toward the prevention of the continued propagation of defective strains in the present population."[6]

Brigham's growing leadership as an authority in this field is underscored by his invitation to address the National Republican Club in January 1924. According to the report in The New York Times, Brigham told the congressmen that the national intelligence was declining in part because of the "wholesale importation of a low-grade of people." He asserted that some immigrants were "carriers of feeble-mindedness," a "recessive trait" which would manifest itself in the next generation.[7] Congress soon after passed legislation which established geographic quotas for immigration consistent with Brigham's findings; these laws were not repealed until the 1960's.

In his Study of American Intelligence, Brigham did not discuss the use of intelligence tests for college admissions, but his book must have been encouraging to those educational administrators who hoped that intelligence tests could help reduce the number of minority applicants who might otherwise qualify. For example, in the immediate post-World War I period, Columbia's Dean Herbert Hawkes felt that his college was admitting about twice the

desirable number of Jews. Although he believed that the "cream" of the Jews were "a very fine body of people" and that Columbia should educate them, Hawkes thought that the average Jew, due to his energy and ambition, attempted to educate himself beyond his inherited capacity. Intelligence tests, argued Hawkes, could be used to select out the "grind" who could prepare well for the conventional examinations offered by the College Board since the turn of the century. Hawkes asserted that by predicting future academic achievement without regard to past preparation, the "new-type" examination would favor the "higher grade" of student.[8] He may have been heartened by Brigham's conclusion that Jews had a relatively low average intelligence "but a higher variability than other nativity groups."[9]

Several other colleges began experimenting with intelligence tests for admission in the early 1920's. Brigham himself evaluated the use of Thorndike's tests at Cooper Union, which began using them at the suggestion of its secretary and trustee, Charles Gould, who also provided the financial backing for A Study of American Intelligence.[10] As suggestive as this link may seem, it is unlikely that such elite schools as Harvard, Princeton, and Yale felt any need for a new-type examination to limit enrollment by undesirable white candidates, mainly Catholics and Jews. (At this time, non-white American applicants were usually excluded pro forma.) These colleges could and did use such techniques as applications identifying race and religion, personal interviews, photographs, and the withholding of financial aid to identify, discourage, and bar unwanted candidates. Whenever these measures proved inadequate and qualified applicants from unwanted minorities became too numerous, these colleges established quotas.[11]

In this context of prejudice, intelligence tests were useful primarily to evaluate promising white Protestant students who could not demonstrate their qualifications in the usual ways by prior attendance at a feeder school, recommendations, alumni relatives, and performance on the College Board written examinations. Princeton University, for example, certainly did not need to look to Carl Brigham to provide tests which could discriminate as effectively as its quota system introduced in 1924 that cut the number of Jewish freshmen in half from 23 to 13.[12] Brigham would have been quick to dispel any such unrealistic expectations.

Brigham's knowledge of the variability within groups, as demonstrated by test results which he published in A Study of American Intelligence, makes it unlikely that he could have believed that such tests could be used to systematically exclude minority access to higher education, although he must have realized that if used alone, the tests would have resulted in disproportionate representation. To his credit, it appears that Brigham was actively interested in promoting access to college by the most able members of minority groups, although not necessarily at Princeton University. At Cooper Union, where he served as Technical Advisor on the use of examinations, he intervened when he learned that a minor official was skipping Jews when admitting qualified students from its waiting list.[13] Evidently, Brigham's desire for an elite based on merit instead of "pecuniary endowment" conflicted with, but probably was stronger than, his stereotypical prejudices concerning the genetic endowment of races. One must wonder, however, how far his meritocratic impulses extended to Blacks, considering his statement that "we are incorporating the negro into our racial stock, while all of Europe is comparatively free from this taint."[14]

Brigham's publications on the subject of the "new-type tests" for use in higher education do not include any references to the race, religion, or ethnic background of students. He focused on the relationship between test and subsequent academic performance, not test performance and race. From his earliest statements on this subject, Brigham warned college administrators not to place too much reliance on intelligence test scores and definitely not to use them alone as ability indicators. As he continued his research at Cooper Union and Princeton prior to developing the SAT, his caveats intensified. Brigham became steadily less convinced that these tests were measuring intelligence, then defined as a unitary construct largely determined by heredity. By 1926, his critical stance made it obvious why the word "intelligence" was not included in the name of the Scholastic Aptitude Test.

In 1923 Brigham had been cautious but hopeful. In "Psychological Tests at Princeton," he wrote that a high score on the experimental battery indicated ability but that a low score did not necessarily mean the opposite. As he put it, "a bright person may fall down, but a stupid person cannot fall up." Although at this time Princeton was using these tests only for guidance, Brigham did address their potential for selection:

> We would never expect to use such tests instead of the examinations of the College Entrance Examining [sic] Board for Admissions. We might, however, find that they would supplement the College Board examinations in a way that would be distinctly advantageous to the Committee on Entrance and to the individual candidate. It is within the realm of possibility that refined instruments of mental measurement might enable one to differentiate between the man of low or mediocre ability, whose apparent superiority on the College Board examinations is due to prolonged tutoring and cramming,

> and the man of high intellectual ability whose apparent deficiency on the College Board examinations is due to a limitation of educational opportunity. I, personally, cannot overcome the feeling that our present scheme for limitation of enrollment favors the man with high pecuniary endowment and penclizes many a man with a high native intellectual endowment whose parents cannot afford to send him to a first-rate preparatory school or pay his tutoring bills.[15]

After four years of experience with testing at Princeton, Brigham reported the results in his article "Intelligence Tests" (May, 1926)[16] and made it clear that the "refined instrument" was not yet at hand. He stated that for use in admissions, "as an additional bit of evidence available in borderline cases, the test score is a very great help to the admissions committee [but] does not deserve as much weight as the regular entrance examinations of the College Entrance Examination Board."

Brigham cautioned that "many of the testers. . . make very extravagant statements. . . Many sins are committed by the testers in the name of science." [Emphasis in original.] "Since some tests are good and others are bad, there is no such thing as an I.Q. in general, but only an I.Q. made on a certain test at a certain time. The I.Q. concept has given a semblance of finality to test results which is not warranted." Brigham's doubts by 1926 also extended to other types of examinations:

> The persons who have studied intelligence tests most intensively have come to have a rather wholesome suspicion of measurements of any kind in the field of education... The so-called intelligence tests in use in colleges today may prove to be temporary devices which are merely compensating at the moment for the inaccuracies of other methods of measurement which now pass without question as genuine measures of desirable traits or accomplishments.

Although "Intelligence Tests" concerned the Princeton Test, it is apparent that most of his comments applied equally to the Scholastic Aptitude Test, to be administered for the first time a month later in June, 1926. The following statement, also from this source, expressed his lack of conviction concerning what the tests measured:

> In giving these tests we do not pretend to be measuring how much intelligence each man has, nor do we even pretend that we measure intelligence. We compute a score on the test, and then try to find out how useful that score may be. Our standards are actually whatever the group furnishes us as a norm.

Statements consistent with these assertions were printed in the first publication about the SAT, entitled "The Scholastic Aptitude Test of the College Entrance Examination Board" (1926). Herein Brigham stated that while the SAT's immediate predecessor, the Princeton Test, seemed to be measuring more than merely prior achievement, "it cannot be maintained, of course, that the tests measure 'native ability' irrespective of training, nor is it necessary to prove before adoption exactly what the tests measure."17

Those who intended to use the Scholastic Aptitude Test may have differed with Brigham concerning what the test would measure and how it could or should be considered in the admissions process. Additional research is needed to explore the views of other influential figures in the test's history. But there is evidence, beyond the fact that the College Board published Brigham's opinions, that the Board's leadership was willing to accept his conclusions. For example, in January 1926, the Board's long-serving Secretary, Thomas Fiske, echoed Brigham while discussing the SAT at a meeting of the supervisors who would administer Form A in June. According

to the transcript, he said:

> ... [the SAT] will be considered by many pupils as an intelligence examination. We do not consider it as that. It is an examination, and just what we are testing, whether it is intelligence or alertness or mentality of an unspecified sort, we do not know... [The] colleges would like to know the result of it; but we certainly do not want to do anything which will enable a candidate to be terribly offended....[18]

Brigham's growing conviction that intelligence was a more complex configuration of aptitudes and abilities than had previously been believed and that his 1923 book was methodologically flawed culminated in his frequently cited article, "Intelligence Tests of Immigrant Groups," written in 1929 and published the following year.[19] Here he concluded that "comparative studies of various national and racial groups may not be made with existing tests. . . one of the most pretentious of these comparative racial studies--the writer's own--was without foundation." Although this article was perhaps the most dramatic public disavowal of earlier research by a leading American psychologist (Brigham was Secretary of the APA in 1930), the previous discussion should suggest that his statement did not represent as much a sudden reversal as the inevitable result of his evolving views. It should be noted, however, that Brigham did not state that group differences did not exist; rather, he wrote that the question could not be answered with available examinations.

That he still thought such tests could be constructed or that an improved SAT could be used for such research is very doubtful. In his 1932 book, A Study of Error, Brigham indicated that while the SAT was helpful for predicting academic performance, "it was not necessary to think of group factors

as entities or as mysterious faculties or as various kinds of intelligence, verbal, mathematical, spatial, and the like."[20] He proposed that "intelligence" was invented by psychologists and averred that if another branch of science studied the same problems, a different concept would emerge. As for the concept of general intelligence, it "seems merely something hypostatized to explain test scores. . . On a par with 'general intelligence' is 'heredity,' 'ether,' and 'a general education.'" Brigham hoped that the study of test results would lead to a new discipline, a "science of education."[21]

The parallelism between the titles of the major books of Brigham's career, A Study of American Intelligence and A Study of Error, is striking. Ironically, Brigham dedicated A Study of Error to Charles Winthrop Gould, the sponsor and ideological forebear of A Study of American Intelligence. Gould, a childless widower, had died in 1931 and left Brigham a generous bequest.[22] While it is possible that Brigham's dedication implied a continued acceptance of views Gould had espoused before 1923, it is more likely that it was made in memory of their friendship and in gratitude.

In his subsequent writings, Brigham consistently expressed a critical attitude toward intelligence testing. In an unpublished manuscript, probably written in 1934, he reviewed the history of psychological measurement:

> The test movement came to this country some twenty-five or thirty years ago accompanied by one of the most glorious fallacies in the history of science, namely, that the tests measured native intelligence purely and simply without regard to training or schooling. I hope nobody believes that now. The test scores very definitely are a composite including schooling, family background, familiarity with English, and everything else, relevant and irrelevant. The native intelligence hypothesis is dead.[23]

Brigham's rejection of the native intelligence hypothesis had important implications concerning preparation for tests. His strongest public statement on this issue was probably made in 1938, when he was quoted in the New York Times as stating:

> The original and fallacious concept of the I.Q. was that it reported some mysterious attribute but now it is generally conceded that all tests are susceptible to training and to varying degrees of environmental opportunity. The tests measure a result and not its origin. Different types of tests will vary in their sensitivity to environmental opportunity, and it is ridiculous to claim that any test score is related to the germ plasm, and that alone.[24]

These may have been Brigham's final published words on the subject of the inheritability of intelligence. His equivocal "and that alone" suggests that he held out the possibility that inherited intellectual capacities could influence test scores, but it is apparent that he no longer believed heredity to be an adequate explanation for the test performance of individuals or groups.

Discussion

A question which naturally arises when one considers both Brigham's 1922-1924 statements concerning the intelligence of groups and his leading role in the creation of the Scholastic Aptitude Test is whether Brigham's prejudices resulted in test bias and consequently, an adverse impact on minorities. Curiosity may be aroused particularly because Brigham's disavowal of the native intelligence hypothesis was published several years after the SAT's introduction.

Evidence has not been found to suggest that Brigham had the discouragement of ethnic minorities in mind when he constructed the SAT. His public statements concerning such tests as the Princeton Test and the SAT focus on their utility for guidance and for evaluation of candidates for admission with inadequate preparation to take the regular College Board examinations, which, he believed, tended to favor students from wealthier backgrounds. To the extent that the SAT provided an alternative opportunity to demonstrate ability to perform college-level work, it was a progressive innovation by 1920's standards. Moreover, although the early SAT's did not include minority-relevant content (now a requirement in ETS test development) and although some of the language had a somewhat more literary flavor than is currently used, they required skills similar to those needed by contemporary SAT test takers and were probably of comparable effectiveness in predicting the academic performance of both majority and minority candidates.[25]

Of course, minorities did not have equal access to selective colleges in the 1920's. Elite institutions tended to use admissions quotas which severely restricted the number of accepted minority students. These schools, in this early period, probably used the SAT primarily to help evaluate "desirable" borderline candidates who could not otherwise demonstrate clearly their qualifications. While the determination of which few minority candidates were chosen may have been influenced by their SAT scores, the question of test bias, regardless of definition, would remain largely undiscussed until the examination was taken annually by a more multicultural candidate population seeking admission to a larger, more diversified group of colleges with more heterogeneous enrollment characteristics.

[1]Edward Lee Thorndike, Individuality, New York, 1911, 38. This and the following two quotations reproduced in Clarence J. Karier, "Elite Views on American Education," Journal of Contemporary History, II:3, 1967, 153-154, to which the discussion of Thorndike is also indebted.

[2]Thorndike, Human Nature and the Social Order, New York, 1940, 957.

[3]Thorndike,"Intelligence and Its Uses," Harpers, CXL, 235.

[4]Harold S. Wechsler, The Qualifed Student: A History of Selective College Admission in America, John Wiley and Sons, New York, 1977, 158-159; Ben D. Wood, Measurement in Higher Education, World Book Company, New York, 1923, 24. Wood performed much of the statistical work needed for the N.I.T.'s development under the direction of Truman L. Kelley in the summer of 1919. He then began his graduate studies under Thorndike's direction. His book cited above was the published version of his dissertation, with the addition of a historical review in an introductory chapter written by Lewis Terman, q.v. See also Matthew T. Downey, Ben D. Wood: Educational Reformer, ETS, Princeton, 1965, 12; and Ben D. Wood, "Oral History Interview," May 8, 1978, 27 (ETS Archives).

[5]Downey, Carl Campbell Brigham: Scientist and Educator, ETS, Princeton, 1961. See also the College Entrance Examination Board's annual reports, 1924-1926.

[6]Carl Campbell Brigham, A Study of American Intelligence, Princeton University Press, Princeton, 1922, 1923, 210. For recent analyses of this book and related issues, see Lee J. Cronbach, "Five Decades of Public Controversy over Mental Testing," American Psychologist, 30:1, January 1975, 1-14; Stephen Jay Gould, The Mismeasure of Man, Norton, NY, 1981; Paul L. Houts (ed.), The Myth of Measurability, Hart Publishing, NY, 1977; and Leon J. Kamin, The Science and Politics of I.Q., Erlbaum, Potomac, Maryland, 1974. For critiques by Brigham's contemporaries, see E. G. Boring, Book Review, New Republic, 34, April 25, 1923, 245; Raymond G. Fuller, Book Review, New York Times, March 18, 1923, III, 18:1; Walter Lippman, "A Defense of Education," The Century Magazine, 106, 1923, 95-103; "Professor [Robert S.] Woodworth Says Regulation Should Be Based on Individuals, Not Groups; Disputes Brigham Theory; Declares There Is Nothing Practical in Princeton Professor's Study," New York Times, July 10, 1924; Franz Boas, "Fallacies of Racial Inferiority," Current History, Feb. 27, 1927, 676-682; M. R. Neifeld, "The Race Hypothesis," American Journal of Sociology, 32, 1926-1927, 423-432.

After geographic immigration quotas were established, Brigham advocated the use of tests to identify "persons of outstanding promise or talent" who would not be subject to the quota. In the article, "Validity of Tests in Examinations of Immigrants," Industrial Psychology, I:6, June 1926, 413-417, he also suggested the term "scholaptitude" to refer to what the tests measured, instead of "intelligence."

[7]"Congress to Tighten Immigration Curb: Members of National Republican Club Are Told of Stringent New Regulations," New York Times, January 27, 1924, II, 1:1.

[8]Wechsler, 160, 163-164.

[9]Brigham, 190.

[10]Brigham, xvii; Brigham, "Preliminary Report of a Study of the Entrance Examination System at Cooper Union," Princeton, January 1923 (ETS Archives); Gary D. Saretzky, "The Sponsor of Carl Campbell Brigham's A Study of American Intelligence: Charles W. Gould," ETS, November 1982 (ETS RM-82-5). Gould was responsible for the introduction of intelligence testing at Cooper Union and for hiring Brigham as Technical Advisor.

[11]Marcia Graham Synnott, The Half-Opened Door: Discrimination and Admissions at Harvard, Yale, and Princeton, 1900-1970, Greenwood Press, Westport, Connecticut, 1979. For the history of Columbia's quota system instituted by Frank H. Bowles, see Wechsler, especially 167-168.

[12]Synnott, 19-20, 182.

[13]Warren G. Findley, "Carl Brigham Revisited," College Board Review, No. 119, Spring 1981, 9. In a personal communication, February 22, 1982, Findley suggested that Brigham's intervention occurred in 1935 or 1936. It is probable that Brigham would have acted similarly in earlier years. In the same letter, Findley, who worked for Brigham at Cooper Union, wrote, "Mr. Gould's interest in Cooper Union and in persuading Brigham to join forces with Cooper Union in producing tests for selective admissions are best viewed as efforts to promote the recruiting of the stronger elements in however generally "debased" racial stocks for advanced training. After all, Cooper Union served the poor via free tuition. I would describe Brigham's outlook as primarily "noblesse oblige," with tests helping in all populations to pick the best where selection was involved and otherwise to guide progress toward avowed goals. Let me remark that the SAT was always recommended by him and used by us jointly with school records (high school averages) to predict promise for further success, never to rule out those whose previous records or tested achievement reflected the product of cramming or tutoring."

[14]A Study of American Intelligence, 209.

[15]Princeton Alumni Weekly, November 28, 1923, 185-187. Brigham's use of the term "aptitude" in this article is of interest. He states that he looks "for the greatest usefulness of psychological tests in the guidance of men in college--guidance in their choice of electives, in the academic load they can carry . . ." He refers to those students who do no more than attempt to pass their courses. "Many of these men have never had their interest aroused in the academic side of their career. The basis of effort is interest, and the basis of interest is aptitude. [Emphasis by Brigham.] If our tests indicate aptitude, and save even a few men from becoming academic derelicts, they will more than repay the time and effort we are putting on them. See also note 6 above, re "scholaptitude," and note 17 below.

[16]Princeton Alumni Weekly, May 5, 1926, 787-792.

[17]Reprinted in College Entrance Examination Board, The Work of the College Entrance Examination Board, Ginn and Company, Boston, 1926, 55 With regard to the interesting question of the name of the Scholastic Aptitude Test, this article provides a partial answer in the following explanation: "The term 'scholastic aptitude test' has reference to examinations of a type now in current use and variously called 'psychological tests', 'intelligence tests', 'mental ability tests', mental alertness tests', et cetera. The committee uses the term 'aptitude' to distinguish such tests from tests of training in school subjects. Any claims that aptitude tests now in use really measure 'general intelligence' or 'general mental ability' may nor may not be substantiated." [Emphasis added.] Ibid., 44. For further discussion of the name of the SAT, see Sydell T. Carlton, "Name of the GRE Aptitude Test," ETS, September 16, 1980, 7.

[18]"Conference of Supervisors Held in the Trustees Room, Columbia Library, Saturday, January 9, 1926, at 10:30 a.m.," 14 (ETS Archives).

[19]Psychological Review, XXXVII, March 1930, 158-165.

[20]A Study of Error, College Entrance Examination Board, New York, 278.

[21]A Study of Error, 28. For a recent evaluation of this volume, see Thomas F. Donlon, "Brigham's Book," College Board Review, No. 113, Fall 1979, 24-30.

[22]Saretzky, 7. (See note 10.)

[23]Manuscript for article on the Board Examinations taken by candidates at West Point and Annapolis thru 1934 (Brigham Papers, ETS Archives). In Downey's Brigham, 27, the word "glorious" was mistranscribed as "serious."

[24]"Brigham Adds Fire to "War of I.Q.'s," New York Times, December 4, 1938, II, 10:1.

[25]See Thomas F. Donlon and Nancy Breland, "The 'Old Days Test': Scholastic Aptitude Test Items from the Twenties Revisited," paper prepared for meeting of the Eastern Educational Research Association, 1981.